

Eurailspeed

Parallel Session C.2

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A few Economic Aspects of the Japanese Shinkansen History



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The Transportation Economics Point of View

- A question : what if ...*there were no Shinkansen* ? Could it be possible to connect Tokyo to Osaka :
 - By car (500km..) ? By express train (>6h..) ?
 - By plane (100 jumbo jets a day!) ?
 - By bus ? (a 40 passengers-bus..every 10 seconds)
- ..Yet, when it was first decided, there were alternative plans to the Shinkansen project..
- The paradox of the financial profitability criteria : ...Were Shinkansen projects high returns projects ? ...Were the amortization of initial investments quick ?

Technologiques *versus*
Economic answers

The concept
of **External Benefits**



The Public Economics point of view (1/3)

1) Shinkansen and Horizontal Separation :

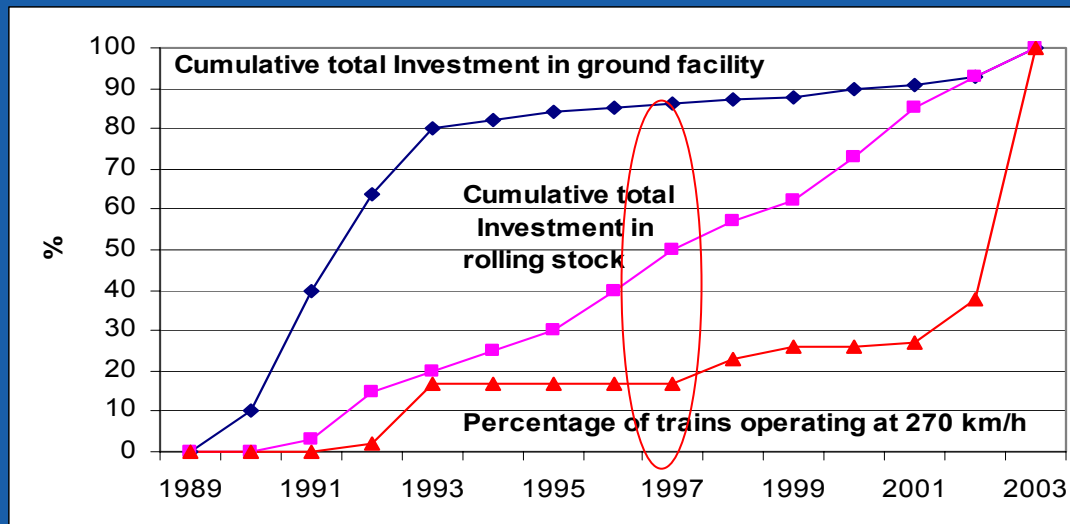
- The Horizontal Separation framework was mostly decided considering the Shinkansen Network
- A question : Shinkansen and Horizontal Separation : what about Competition ?
 - The race speed between 1993 and 1996 : until September 1993 : JR *WEST*, with 350 km/h ; 1993, September 9 : JR *EAST* 363 km/h ; 1993, December : JR *EAST* 425 km/h ; 1996 : JR *CENTRAL* : 443 km/h...
 - Horizontal Separation, Competition and Innovative technology : the role of the Shinkansen



The Public Economics point of view (2/3)

2) Shinkansen, and Vertical Separation ?

- The beginning of the history of an innovative technology like the Shinkansen one : in the first 6 months, 12 incidents related in the newspapers (1964) : 7 involving infrastructure, 5 involving operation...
- The Investment curve of a project : « Increase Shinkansen speed up to 270 km/h »



- Timing
- Risk



The Public Economics point of view (3/3)

3) Shinkansen, Horizontal Separation and Privatization : the Specialisation effect

- In 1987 : 3 different types of Shinkansen ; in 1998 : 10 different types.
- Different Shinkansens, different priorities :
 - The *Tokaido* and *Sanyo* Shinkansen (Tokyo-Osaka ; JR Central and JR West) : increase speed (ex : from 1987 to 1997, 30 min were won by JR WEST on the Osaka-Hakata line)
 - The *Tohoku*, *Yamagata*, *Nagano*, *Akita* and *Joetsu* Shinkansen (East and North of Honshu ; JR East) : increase cost performance, services..



The Marketing point of view

- The « Mini-Shinkansen » history :
 - An issue : A Shinkansen goes until one city (Fukushima) but lot of passengers would like to go further (until Yamagata region), and they do not know, or do not want to ride the usual existing local lines trains going from Fukushima to Yamagata
 - An idea : build a “ mini-Shinkansen ”, that is to say a train that does not officially fall into the category of the Shinkansen, but that allows to save time compared to the existing trains (40 min saved between Tokyo and Yamagata) and, what’s more, that takes advantage of the image of the Shinkansen..
- The Marketing lesson from the Mini-Shinkansen experience : build a train that is not exactly a Shinkansen (and 1/20 of construction expenses of a full-sized Shinkansen) but that still benefits from the image of the Shinkansen, in order to increase the ridership..

